



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 430
Alexandria, Virginia 22313-1430
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/784,058

02/20/2004

Chung-Wen Ko

250122-1240

6848

24504

7590

07/17/2006

THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP
100 GALLERIA PARKWAY, NW
STE 1750
ATLANTA, GA 30339-5948

EXAMINER

LIE, ANGELA M

ART UNIT

PAPER NUMBER

2163

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/784,058

Applicant(s)

KO, CHUNG-WEN

Examiner

Angela M. Lie

Art Unit

2163

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by May (US Patent 6211613).

As to claim 1, May discloses an organic electroluminescent display, comprising: an organic electroluminescent display (OLED) panel (column 6, lines 21-25); a reflective sheet (Figure 1, element 10); and a brightness regulating film (column 1, lines 59-62) for light transmission between the organic electroluminescent display panel and the reflective sheet (column 6, lines 21-29).

As to claim 2, May discloses the display wherein the organic electroluminescent display panel further comprises: a transparent substrate (Figure 1, element 12), a first transparent electrode (Figure 1, element 4) over the transparent substrate; a light emitting layer (column 6, lines 22-26) over the transparent electrode; and a second transparent electrode over the light emitting layer (Figure 1, element 2).

As to claim 3, May discloses the display wherein the light-emitting layer is an organic electroluminescent film (column 6, lines 21-26).

As to claim 4, May discloses the display wherein the brightness regulating film is an optical slit to control light transmission from the environment (Figure 1, element 14).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over May (US Patent 6211613) in the view of Richard (US Patent 6759945).

As to claims 5 and 6, May teaches all the limitations disclosed in claim 4 except for the brightness regulating film being made of electrochromic or liquid crystal capable for controlling light transmission thereon by adjusting current applied thereto. Richard teaches a variable transmittance device comprising a super-twisted nematic (STN) liquid crystal cell connected to the adjustable voltage source and photo sensor, so that

Art Unit: 2163

transitivity of STN can be adjusted based on detected light. It would have been obvious to one of the ordinary skill in the art during the time the invention was made to incorporate Richard's light adjustment means into the display as taught by May (i.e. replace the existing polarizer) because brightness regulating means taught by Richard increase the contrast of the display independently of the ambient light, furthermore the brightness regulating mechanism allow fast response, good viewing angle and high tolerance of temperatures (column 3, lines 1-10). With respect to claim 6, a photo sensor to detect light intensity of the environment is necessary to the device as described above. Richard teaches two photo sensors connected to the STN, wherein one of those sensor is used to detect ambient light.

As to claim 7, Richard teaches the device wherein the brightness regulating film adjusts the light transmission intensity from the environment according to a light intensity of the environment detected by the photo sensor (column 3, lines 33-57).

As to claim 8, May teaches all the limitations presented in claim 1 except for the brightness regulating film adjusting a light-transmitting mode thereof by controlling current intensity applied thereon according to a light intensity of the environment as detected by the photo sensor. Richard teaches a super-twisted nematic liquid crystal connected to the photo sensors and adjustable voltage supply. As the light detected by photo sensors changes control voltage is also changed and this causes change in the STN liquid crystal transitivity (reflectance). It would have been obvious to one of the ordinary skill in the art during the time the invention was made to incorporate Richard's light adjustment means into the display as taught by May (i.e. replace the existing

Art Unit: 2163

polarizer) because brightness regulating means taught by Richard increase the contrast of the display independently of the ambient light, furthermore the brightness regulating mechanism allow fast response, good viewing angle and high tolerance of temperatures (column 3, lines 1-10).

Response to Arguments

6. Applicant's arguments filed June 1, 2006 have been fully considered but they are not persuasive.

7. With respect to the applicant's assertion on pages 4 and 5, stating that May does not teach a brightness regulating film placed between the organic electroluminescent display panel and the reflective sheet", the examiner agrees that May does not teach the filter being placed in between two layers, however the language of claim 1, does not clearly disclose such a structure. The words "between the organic electroluminescent display panel and the reflective sheet" are directed more toward "light transmission". In other words it is not clearly defined that the brightness regulating film supposed to be placed between the reflective sheet and electroluminescent display panel.

8. With respect to the applicant arguments regarding rejection of claims 5-8 under 35 U.S.C 103(a), stating that the Richard (secondary reference) does not heal the deficiency discussed in the paragraph above, the examiner disagrees with this assertion because as explained above, there is no deficiency, but rather unclear claim language.

9. With respect to the applicant's assertion on page 6, alleging that there is no motivation or suggestion for combining the cited references; the examiner again

Art Unit: 2163

disagrees with this statement. The motivation presented in claims 5-8, as quoted by the applicant, is very clear, reasonable and furthermore it is also disclosed in the cited references. To the best of examiner's knowledge, the rejection under 35 U.S.C 103(a) does not lack any of the required criteria and therefore it is considered to be proper.

10. Claims 1-8 remain rejected.

The Prior Art

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Publication 20040066123 disclosed an organic electroluminescent display comprising a substrate, two transparent electrodes, organic electroluminescent material and a reflective sheet.
- US Patent discloses optical panel capable of switching between reflective and transmissive modes.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

13. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 2163

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquiry

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela M. Lie whose telephone number is 571-272-8445. The examiner can normally be reached on M-F.

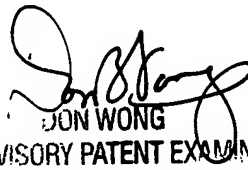
15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2163

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Angela M Lie



DON WONG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100